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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/651,072	08/28/2003	Alan Frank Parker	ROCKCO P61AUS	7263
20210	7590	03/28/2005	EXAMINER	
DAVIS & BUJOLD, P.L.L.C. FOURTH FLOOR 500 N. COMMERCIAL STREET MANCHESTER, NH 03101-1151			NEGRON, ISMAEL	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/651,072	Applicant(s) PARKER, ALAN FRANK	
	Examiner Ismael Negron	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/28/03, 10/27/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's preliminary amendment filed on August 28, 2003 has been entered. Claims 1-10 have been cancelled. Claims 11-20 have been added. Claims 11-20 are still pending in this application, with claims 11 and 20 being independent.

Title

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: **Illumination Device Having Optical Particles for Diffusing Light.**

Claim Objections

3. Claim 11 is objected to because of the following informalities: line 6 should read "one source of light passes upon ~~engerization~~ energization of the at least one source of light; and". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The phrase "such as" renders Claim 11 indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claims 12-19 are rejected for their dependency on rejected Claim 1.

6. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over GEORGE, Jr. (U.S. Pat. 4,271,458) in view of LEW et al. (U.S. Pat. 4,600,974).

GEORGE, Jr. discloses an illumination device having:

- **a body member (as recited in Claim 11), reference number 30;**

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- **at least one light source (as recited in Claim 11), reference number 20;**
- **the light source being aligned along a longitudinal axis of the body member (as recited in Claim 11), as seen in the figure;**
- **the light source lying within the body member (as recited in Claim 11), column 3, lines 14-17;**
- **the body member including at least one transparent region (as recited in Claim 11), column 2, line 44;**
- **light from the light source passing through the transparent region (as recited in Claim 11), inherent;**
- **the body member being a sealed enclosure (as recited in Claim 19), column 2, lines 55-61;**
- **the sealed enclosure including conductors for electricity powering the light source (as recited in Claim 19), reference numbers 12 and 14; and**
- **the sealed enclosure being sealed by way of a gas tight seal (as recited in Claim 19), column 3, lines 7-10.**

GEORGE, Jr. discloses all the limitations of the claims, except:

- **optical particles (as recited in Claim 11);**
- **the optical particles lying in the body member (as recited in Claim 11); and**

- the optical particles extending between the light source and an inside surface of the transparent region (as recited in Claim 11).

LEW et al. discloses an illumination de device having:

- **a body member (as recited in Claim 11), Figure 7, reference number 21;**
- **at least one light source (as recited in Claim 11), Figure 7, reference number 26;**
- **the light source being aligned along a longitudinal axis of the body member (as recited in Claim 11), as seen in the Figure 7;**
- **the body member including at least one transparent region (as recited in Claim 11), column 3, lines 7 and 8;**
- **light from the light source passing through the transparent region (as recited in Claim 11), inherent;**
- **optical particles (as recited in Claim 11), column 3, lines 16-21;**
- **the optical particles lying in the body member (as recited in Claim 11), column 3, 16-21; and**
- **the optical particles extending between the light source and an inside surface of the transparent region (as recited in Claim 11), as seen in Figure 7; and**
- **the body member being a sealed enclosure (as recited in Claim 19), inherent.**

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It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add the optical particles of LEW et al. to the illumination device of GEORGE, Jr. to further enhance the decorative value of such device by diffusing the emitted light, as per the teachings of LEW et al..

8. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over GEORGE, Jr. (U.S. Pat. 4,271,458) in view of LEW et al. (U.S. Pat. 4,600,974).

The teachings of GEORGE, Jr. and LEW et al. disclose individually, or suggest in combination, all the limitations of the claims (as detailed in Section 7) except:

- at least one of the plurality of light sources being a light emitting solid state device (as recited in Claim 12);
- the optical particles being glass balls (as recited in Claim 12);
- the body member being a tube of glass (as recited in Claim 13);
- the optical elements being of uniform size and shape (as recited in Claim 14);
- the optical particles varying in size over a spectrum of sizes (as recited in Claim 15); and
- the optical elements being of similar shape (as recited in Claim 16).

The examiner takes Official Notice that the use of LEDs is old and well known in the illumination art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute an LED for the light source in the system of GEORGE, Jr. and LEW et al. (as recited in Claim 12). One would have been motivated

since LEDs are recognized in the illumination art to have many desirable advantages, including reduced size, high efficiency, low power consumption, long life, resistance to vibrations, and low heat production, over other light sources.

Regarding the optical particles being glass balls (as recited in Claim 12) or the body member being a glass tube (as recited in Claims 13), it would have been an obvious matter of design choice to use such glass balls or glass tube, since the applicant has not disclosed that using specifically glass balls for the optical elements, or a glass tube as the body member, solves any problem or is for a particular reason. It appears that the claimed invention would perform equally well with the optical particles and body member as disclosed by both GEORGE, Jr. and LEW et al.. In addition, the Examiner takes Official Notice of applicant's statements regarding glass being merely one of the many materials suitable for the optical particles and body member, selection of a particular material being determined by the specific requirements of a particular application. See the specification, as filed, paragraphs [0024] and [0025].

Regarding the optical particles being of uniform size and shape (as recited in Claim 14), their size varying over a range of sizes (as recited in Claim 15), or being of similar shape (as recited in Claim 16), it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to include optical particles having the claimed size/shape in the device of GEORGE, Jr. and LEW et al., since it has been held by the courts that a change in shape, without any criticality, is nothing more than one of numerous shapes that one of ordinary skill in the art will find obvious

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to provide based on the suitability for the intended final application. See *In re Dailey*, 149 USPQ 47 (CCPA 1976). In addition, it has been held by the courts that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device, and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984).

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over GEORGE, Jr. (U.S. Pat. 4,271,458) in view of LEW et al. (U.S. Pat. 4,600,974).

The teachings of GEORGE, Jr. and LEW et al. disclose individually, or suggest in combination, all the limitations of the claims except at least one of the plurality of light sources being of a different color than at least one other of the plurality of light sources (as recited in Claim 17).

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to include light of different colors (as recited in Claim 17) in the illumination device of GEORGE, Jr. and LEW et al. to increase the decorative value of such device, as per the teachings of LEW et al. (see column 3, lines 1-4).

Relevant Prior Art

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Otis (U.S. Pat. 2,383,941), **Nordeen et al.** (U.S. Pat. 3,995,151), **Cairns et al.** (U.S. Pat. 4,191,943), **Zamja et al.** (U.S. Pat. 4,195,907), **Daniel** (U.S. Pat. 4,466,697), **Davenport et al.** (U.S. Pat. 5,101,325), **Blyler, Jr. et al.** (U.S. Pat. 5,117,472), **Tseng** (U.S. Pat. 5,803,580), **Duflos** (U.S. Pat. 6,464,382) and **Jao** (U.S. Pat. 6,672,552) disclose illumination devices having a tubular body member containing a fluid in which a plurality of optical particles as suspended. The optical particles diffuse light from a light source to evenly emit light across the surface of the body member. **Nordeen et al.** specifically discloses the light source being decorative light-string, including a plurality of light sources, positioned on an outer surface of the body member along its longitudinal axis.

George, Jr. (U.S. Pat. 3,755,663), **Tieszen** (U.S. Pat. 4,376,966), **Bowen et al.** (U.S. Pat. 5,057,981), **Camarota** (U.S. Pat. 5,934,792), **Yamuro** (U.S. Pat. 5,941,626), **Coates, Jr. et al.** (U.S. Pat. 6,039,458) and **Ko** (U.S. Pat. 6,601,971) disclose illumination devices including a plurality of light sources located inside a transparent tubular member. **Yamuro** specifically discloses the light sources being LED, the surface of the LED being etched, or otherwise covered with a plurality of optical particles, for diffusing the light output of each LED.

Allowable Subject Matter

11. Claim 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

Applicant discloses an illumination device having a body member having at least one transparent region, at least one light source located inside the body member and disposed along a longitudinal axis of such member. Optical particles are located inside the body member and surrounding the at least one light source. The space inside the body member not occupied by the at least one light source or the optical particles is filled with a gas or vapor, and maintained at a controlled pressure relative to atmospheric pressure.

No prior art was found disclosing individually, or suggesting in combination, a body member filled with a gas or vapor and including optical particles, in combination with the claimed illumination device.

Conclusion

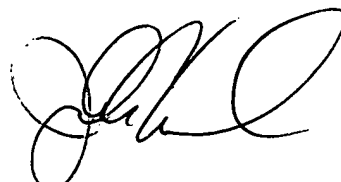
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Negron whose telephone number is (571) 272-

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2376. The examiner can normally be reached on Monday-Friday from 9:00 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea, can be reached on (571) 272-2378. The facsimile machine number for the Art Group is (703) 872-9306.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications maybe obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) toll-free at 866-217-9197.



JOHN ANTHONY WARD
PRIMARY EXAMINER

for
Inr

March 19, 2005